

WHAT IS CLAIMED IS:

1. A fixing apparatus for fixing a visible image, comprising:

first rotating means for rotatably fixing a visible image transferred on a medium from a transfer device which develops an electrostatic latent image formed on a latent image bearing body with a developer; and

second rotating means for rotatably supporting the first rotating means while the first rotating means fixes the visible image on the medium, the second rotating means being positioned to form a transfer pass for the medium with the first rotating means,

wherein the developer contains a toner having a volume mean grain size of from 5 to 10 micrometers and a grain size not larger than 5 micrometers accounting for 60 through 80 number percent, and the first rotating means has a surface resistivity between 1×10^7 through 1×10^{10} Ω /square.

2. The fixing apparatus according to Claim 1, wherein the first rotating means has a surface coated with a layer of fluroresin with a carbon content.

3. The fixing apparatus according to Claim 1, wherein the first rotating means has a surface layer and a core, and an insulating layer provided between the surface layer and the core.

4. The fixing apparatus according to Claim 1, wherein the toner comprises resin constituents, colorants, wax

constituents, and inorganic particulates.

5. The fixing apparatus according to Claim 1, wherein the toner is manufactured by pulverization or polymerization.

6. The fixing apparatus according to Claim 2, wherein the coated layer of the first rotating means contains an electroconductive agent of spherical carbon, a percentage composition of the electroconductive agent being conditional on the surface resistivity of the first rotating means standing at less than 1×10^{10} Ω /square when the voltage at the time of measurement is 500V and not less than 1×10^7 Ω /square at 10V

7. The fixing apparatus according to Claim 4, wherein the resin constituent comprises at least one constituent selected from the group consisting of styrene, poly- α -stilstyrene, styrene-chlorostyrene copolymer, styrene-propylene copolymer, styrene-butadiene copolymer, styrene-vinyl chloride copolymer, styrene-vinyl acetate copolymer, styrene-maleic acid copolymer, styrene-acrylic ester copolymer, styrene-methacrylic acid ester copolymer, styrene- α -chloroacrylic methyl copolymer, styrene-acrylonitrile-acrylic ester copolymer and other styrene resins (polymers or copolymers containing styrene or styrene substitution product), polyester resin, epoxy resin, vinyl chloride resin, rosin modified maleic acid resin, phenol resin, polyethylene resin, polyester resin, polypropylene resin, petroleum rosin, polyurethane resin, ketone resin, ethylene-ethylacrylate

copolymer, xylene resin, and polyvinyl butyral.

8. The fixing apparatus according to Claim 4, wherein the colorant comprises at least one colorant selected from the group consisting of carbon black, lampblack, iron black, ultramarine blue, nigrosine dye, aniline blue, chalco oil blue, oil black, and azo oil black.

9. The fixing apparatus according to Claim 4, wherein the wax constituent comprises at least one wax constituent selected from the group consisting of a carnauba wax, rice wax, and synthetic ester wax.

10. The fixing apparatus according to Claim 4, wherein the inorganic particulates comprise at least one kind of particulates selected from the group consisting of silica particulates and titanium oxide particulates.

11. An image-forming device that uses a fixing apparatus, the fixing apparatus comprising:

a transfer device configured to develop an electrostatic latent image formed on a latent image bearing body into a visible image with a developer and transfer the visible image onto a medium; and

fixing means for fixing the visible image on the medium, wherein the developer contains a toner having a volume mean grain size of from 5 to 10 micrometers and a grain size not larger than 5 micrometers accounting for 60 through 80 number percent, the fixing means includes first rotating means for rotatably fixing the visible image on the medium, and the

first rotating means has a surface resistivity between 1×10^7 through 1×10^{10} Ω /square.

12. The image-forming device according to Claim 11, wherein the fixing means includes second rotating means positioned to form a transfer pass for the medium with the first rotating means, and the first rotating means has a surface coated with a layer of fluoresin with a carbon content.

13. The image-forming device according to Claim 11, wherein the first rotating means has a surface layer and a core, and an insulating layer provided between the surface layer and the core.

14. The image-forming device according to Claim 11, wherein the toner comprises resin constituents, colorants, wax constituents, and inorganic particulates.

15. The image-forming device according to Claim 11, wherein the toner is manufactured by pulverization or polymerization.

16. The image-forming device according to Claim 12, wherein the coated layer of the first rotating means contains an electroconductive agent of spherical carbon, a percentage composition of the electroconductive agent being conditional on the surface resistivity of the first rotating means standing at less than 1×10^{10} Ω /square when the voltage at the time of measurement is 500V and not less than 1×10^7 Ω /square at 10V.

17. The image-forming device according to Claim 14, wherein the resin constituent comprises at least one constituent selected from the group consisting of styrene, poly- α -stilstyrene, styrene-chlorostyrene copolymer, styrene-propylene copolymer, styrene-butadiene copolymer, styrene-vinyl chloride copolymer, styrene-vinyl acetate copolymer, styrene-maleic acid copolymer, styrene-acrylic ester copolymer, styrene-methacrylic acid ester copolymer, styrene- α -chloroacrylic methyl copolymer, styrene-acrylonitrile-acrylic ester copolymer and other styrene resins (polymers or copolymers containing styrene or styrene substitution product), polyester resin, epoxy resin, vinyl chloride resin, rosin modified maleic acid resin, phenol resin, polyethylene resin, polyester resin, polypropylene resin, petroleum resin, polyurethane resin, ketone resin, ethylene-ethylacrylate copolymer, xylene resin, and polyvinyl butyral.

18. The image-forming device according to Claim 14, wherein the colorant comprises at least one colorant selected from the group consisting of carbon black, lampblack, iron black, ultramarine blue, nigrosine dye, aniline blue, chalc oil blue, oil black, and azo oil black.

19. The image-forming device according to Claim 14, wherein the wax constituent comprises at least one wax constituent selected from the group consisting of a carnauba wax, rice wax, and synthetic ester wax.

20. The image-forming device according to Claim 14,

wherein the inorganic particulates comprise at least one kind of particulates selected from the group consisting of silica particulates and titanium oxide particulates.

21. A method for forming an image on a medium, comprising:

developing an electrostatic latent image formed on a latent image bearing body into a visible image with a developer containing a toner having a volume mean grain size of from 5 to 10 micrometers and a grain size not larger than 5 micrometers accounting for 60 through 80 number percent;

transferring the visible image onto a medium; and

fixing the visible image on the medium with first rotating means for rotatably fixing the visible image on the medium,

wherein the first rotating means has a surface resistivity between 1×10^7 through 1×10^{10} Ω /square.

22. The method according to Claim 21, wherein the fixing comprises passing the medium through a transfer pass formed by the first rotating means with second rotating means, and the first rotating means has a surface coated with a layer of fluroresin with a carbon content.

23. The method according to Claim 21, wherein the first rotating means has a surface layer and a core, and an insulating layer provided between the surface layer and the core.

24. The method according to Claim 21, wherein the toner

comprises resin constituents, colorants, wax constituents, and inorganic particulates.

25. The method according to Claim 21, wherein the toner is manufactured by pulverization or polymerization.

26. The method according to Claim 22, wherein the coated layer of the first rotating means contains an electroconductive agent of spherical carbon, a percentage composition of the electroconductive agent being conditional on the surface resistivity of the first rotating means standing at less than 1×10^{10} Ω /square when the voltage at the time of measurement is 500V and not less than 1×10^7 Ω /square at 10V

27. The method according to Claim 24, wherein the resin constituent comprises at least one constituent selected from the group consisting of styrene, poly- α -stilstyrene, styrene-chlorostyrene copolymer, styrene-propylene copolymer, styrene-butadiene copolymer, styrene-vinyl chloride copolymer, styrene-vinyl acetate copolymer, styrene-maleic acid copolymer, styrene-acrylic ester copolymer, styrene-methacrylic acid ester copolymer, styrene- α -chloroacrylic methyl copolymer, styrene-acrylonitrile-acrylic ester copolymer and other styrene resins (polymers or copolymers containing styrene or styrene substitution product), polyester resin, epoxy resin, vinyl chloride resin, rosin modified maleic acid resin, phenol resin, polyethylene resin, polyester resin, polypropylene resin, petroleum rosin, polyurethane

resin, ketone resin, ethylene-ethylacrylate copolymer, xylene resin, and polyvinyl butyral.

28. The method according to Claim 24, wherein the colorant comprises at least one colorant selected from the group consisting of carbon black, lampblack, iron black, ultramarine blue, nigrosine dye, aniline blue, chalco oil blue, oil black, and azo oil black.

29. The method according to Claim 24, wherein the wax constituent comprises at least one wax constituent selected from the group consisting of a carnauba wax, rice wax, and synthetic ester wax.

30. The method according to Claim 24, wherein the inorganic particulates comprise at least one kind of particulates selected from the group consisting of silica particulates and titanium oxide particulates.